

ADOT JPA File No.: JPA 06-145
AG Contract No.: KR07-0020TRN
Project No.: TUC-0(204)X
Project: Southern Arizona Region
Fiber Optic Signal
Interconnect System
TRACS No.: SS633 03D & 01C

INTERGOVERNMENTAL AGREEMENT

BETWEEN
THE STATE OF ARIZONA
AND
THE CITY OF TUCSON

THIS AGREEMENT is entered into April 18th, 2007, pursuant to Arizona Revised Statutes, § 11-951 through § 11-954, as amended, between the STATE OF ARIZONA, acting by and through its DEPARTMENT OF TRANSPORTATION (the "State") and the CITY OF TUCSON, acting by and through its MAYOR and CITY COUNCIL (the "CITY").

I. RECITALS

1. The State is empowered by Arizona Revised Statutes § 28-401 and § 28-334 to enter into this Agreement and has delegated to the undersigned the authority to execute this Agreement on behalf of the State.
2. The City is empowered and authorized to contract by Tucson Charter Chapter IX, Section 1 and by Arizona Revised Statutes § 9-276A(1) and 48-572 to enter into this Agreement and has delegated to the undersigned the authority to enter this Agreement on behalf of the City.
3. Congress has authorized appropriations for, the design and construction of a Regional Transportation Communication Network, as part of Section 5208 of the 2004 Transportation Appropriations Act.
4. Such project lies within the boundary of the City and has been selected by the City; the survey of the project has been completed; and the plans, estimates and specifications will be prepared and, as required, submitted to the State and Federal Highway Administration (FHWA) for its approval.
5. A project within the boundary of the Tucson Region has been selected by the City and submitted to the State and the Federal Highway Administration (FHWA) for their approval.
6. The interest of the State for this project is in the acquisition of Federal funds for the use and benefit of the City. Funds expended for the project, are authorized by reason of Federal law and regulations.

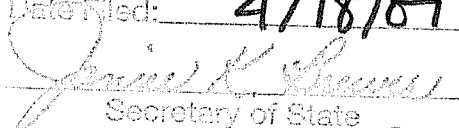
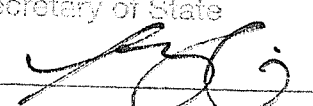
NO. 28875
Filed with the Secretary of State
Date Filed: 4/18/07

Secretary of State
By: 

Exhibit A to Resolution No. 20616
City of Tucson Contract No. 0422-07

7. The work encompassed in this Agreement is to design and construct a Southern Arizona Region Fiber Optic Signal Interconnect System, hereinafter referred to as the "Project". The State shall be the designated agent for the City. Federal funding for this Project shall not exceed 80 percent of the cost of the Project and the City shall match the Federal funds with at least 20% of the allowable costs.

SS 633 03D	\$ 750,000.00
SS 633 01C	<u>\$2,265,537.00</u>
Total Federal Funding	\$3,015,537.00

THEREFORE, in consideration of the mutual covenants expressed herein, it is agreed as follows:

II. SCOPE OF WORK

1. The State Shall:

a. Enter into a Project Agreement with the FHWA on behalf of the City, attached hereto and made a part hereof and the Project will be performed, completed, accepted and paid for in accordance with the requirements of the ITS Partnership Agreement.

b. Submit a program to the Federal Highway Administration (FHWA) containing the above-mentioned Project with the recommendation that it be approved for implementation and funding. If such a project is approved by the FHWA and the funds are available for the design and construction of the Project, the State with the aid and consent of FHWA in accordance with TEA-21 Section 5208(g)(1) and (f)(2) authorize the City to proceed with the work covered in the application and will request the maximum Federal funds available.

c. Not be obligated to incur any expenditure on behalf of the City in excess of the amount reference herein. Should costs exceed the maximum Federal funds available, or unforeseen conditions or circumstances increase the cost of said work required by a change in the extent or scope of the work called for in this Agreement, it is understood and agreed that the City will be responsible for any overage.

d. Not be obligated to maintain said Project, should the City fail to budget or provide for proper and perpetual maintenance as set forth in this Agreement.

2. The City Shall:

a. Upon execution of this Agreement designate the State as authorized agent for the City.

b. Develop a master plan and all planning documents for the design and construction of the Southern Arizona Regional Fiber Optic Signal Interconnect System in a format consistent with the FHWA submittal process for funding and authorization.

c. Upon authorization of the FHWA proceed with the work covered in the application and shall proceed to advertise for, receive and open bids and enter into a contract(s) with a firm(s) for the construction of the project.

d. Provide quarterly progress reports to the Assistant State Engineer Traffic Operations Center, at 2302 W. Durango, Mail DropPM02, Phoenix, Arizona 85009.

e. Through collaborative efforts with the State, regional and local jurisdictions utilize the City's portion of the funds, in an amount not to exceed \$3,015,537.00 to accomplish the Project.

- f. Assess current and future needs for center-to-center information exchange. Develop functional requirements, procure, test and operate center-to-center systems software to meet current needs. Develop a framework for procurement and operations of systems to address future needs.
- g. Develop an implementation plan for using a combination of fiber infrastructure, wireless infrastructure, and leased line infrastructure to achieve region wide connectivity.
- h. Upon execution of this Agreement and no more than monthly invoice the State as necessary to pay reasonable direct actual costs of the various Project development, design and construct with no City indirect costs, overhead profit or fee, in a total amount up to \$3,015,537.00 for the cost of the Project.
- i. Be entirely responsible for all costs incurred in performing and accomplishing the work as set forth in this Agreement whether covered by Federal funding or not.
- j. Provide for cost and, as an annual item in the City's budget, proper maintenance of the Project including all of the Project components.
- k. Acknowledge and fulfill the reporting requirements and other such responsibilities as defined in the ITS Partnership Agreement between the Federal Highway Administration and the Arizona Department of Transportation for Project No. ITS-TUC-0(204)X

III. MISCELLANEOUS PROVISIONS

1. The State assumes no financial obligation or liability under this Agreement, or for any resulting construction of the Project. The City, in regard to the City's relationship with the State, assumes full responsibility for the design, plans, specifications, reports, the engineering in connection therewith and the construction of the improvements contemplated, cost over-runs and construction claims. It is understood and agreed that any damages arising from carrying out, in any respect, the terms of this Agreement or any modification thereof, shall be solely the liability of the City and that to the extent permitted by law, the City hereby agrees to save and hold harmless and indemnify from loss the State, any of its departments, agencies, officers or employees from any and all cost and/or damage incurred by any of the above and from any other damage to any person or property whatsoever, which is caused by any activity, condition, misrepresentation, directives, instruction or event arising out of the performance or nonperformance of any provisions of this Agreement by the State, any of its departments, agencies, officers and employees the City, any of its agents, officers and employees, or any of its independent contractors. Costs incurred by the State, any of its departments, agencies, officers or employees shall include in the event of any action, court costs, and expenses of litigation and attorneys' fees.
2. The cost of the construction and construction engineering work covered by this Agreement is to be borne by FHWA and the City, each in the proportion prescribed or as fixed and determined by the FHWA as stipulated in this Agreement. Therefore, the City agrees to furnish and provide the difference between the total cost of the work provided for in this Agreement and the amount of Federal aid received.
3. The terms, conditions and provisions of this Agreement shall remain in force and effect until completion of said project and related deposits or reimbursement, except any provisions for maintenance shall be perpetual, unless assumed by another competent entity. Further, this Agreement may be canceled at any time prior to the award of the project construction contract, upon thirty days (30) written notice to the other party. It is understood and agreed that, in the event the City terminates this Agreement, the State shall in no way be obligated to maintain said project.
4. This Intergovernmental Agreement shall be filed with the Arizona Secretary of State and shall not become effective until the date of said filing.
5. This Agreement may be cancelled in accordance with Arizona Revised Statutes § 38-511.
6. The provisions of Arizona Revised Statutes § 35-214 are applicable to this contract.
7. This Agreement is subject to all applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101-12213) and all applicable federal regulations under the Act,

including 28 CFR Parts 35 and 36. The parties to this Agreement shall comply with Executive Order Number 99-4 issued by the Governor of the State of Arizona and incorporated herein by reference regarding "Non-Discrimination".

8. Non-Availability of Funds. Every payment obligation of the State and City under this contract is conditioned upon the availability of funds appropriated or allocated for the payment of such obligation. If funds are not allocated and available for the continuance of this contract, this contract may be terminated by the State and/or City at the end of the period for which the funds are available. No liability shall accrue to the State in the event this provision is exercised, and the State shall not be obligated or liable for any future payments or for any damages as a result of termination under this paragraph.

9. In the event of any controversy, which may arise out of this Agreement, the parties hereto agree to abide by required arbitration as is set forth for public works contracts in Arizona Revised Statutes § 12-1518.

10. All notices or demands upon any party to this Agreement shall be in writing and shall be delivered in person or sent by mail addressed as follows:

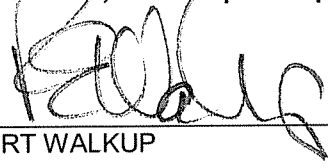
Arizona Department of Transportation
John Dickson
205 S. 17th Avenue Mail Drop 616E
Phoenix, AZ 85007
FAX: (602) 712 7424

City of Tucson
Attention: Catesby Willis
P.O. Box 27210
Tucson, Arizona 85726
Phone: 520-791-5100

11. Pursuant to Arizona Revised Statutes § 11-952, (D), attached hereto and incorporated herein, is the written determination of each party's legal counsel that the parties are authorized under the laws of this State to enter into this Agreement and that the Agreement is in proper form.

IN WITNESS WHEREOF, the parties have executed this Agreement the day and year first above written.


CITY OF TUCSON, a Municipal Corporation

By 
ROBERT WALKUP
Mayor

Date March 27, 2007

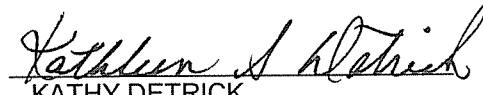
STATE OF ARIZONA

Department of Transportation

By 
DALE BUSKIRK, DIVISION DIRECTOR
Transportation Planning Division

Date 4/9/07

ATTEST

By 
KATHY DETRICK
City Clerk

Date March 27, 2007

ADOPTED BY THE
MAYOR AND COUNCIL

March 27, 2007

RESOLUTION NO. 20616

RELATING TO INTERGOVERNMENTAL AGREEMENTS; APPROVING AND AUTHORIZING EXECUTION OF AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE CITY OF TUCSON AND THE STATE OF ARIZONA FOR THE TRANSFER OF FEDERAL HIGHWAY ADMINISTRATION GRANT FUNDING FOR THE REGIONAL TRANSPORTATION DATA NETWORK; AND DECLARING AN EMERGENCY.

BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF TUCSON, ARIZONA, AS FOLLOWS:

SECTION 1. The Intergovernmental Agreement between the City of Tucson and the State of Arizona for the transfer of Federal Highway Administration Grant Funding for the Regional Transportation Data Network, attached hereto as Exhibit "A", is hereby approved.

SECTION 2. The Mayor is hereby authorized and directed to execute the said Intergovernmental Agreement for and on behalf of the City of Tucson and the City Clerk is directed to attest the same.

SECTION 3. The various City officers and employees are authorized and directed to perform all acts necessary or desirable to give effect to this resolution.

Certificate of Clerk
● City of Tucson ●

State of
Arizona
County of
Pima

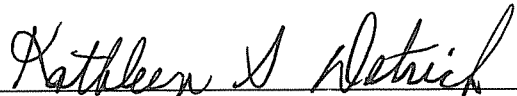
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ss

I, Kathleen S. Detrick, the duly appointed and qualified City Clerk of the City of Tucson, Arizona, do hereby certify that the foregoing is a true and correct copy of Resolution No. 20616 which was passed and adopted by the Mayor and Council of the City of Tucson, Arizona, at a meeting held on March 27, 2007 at which a quorum was present.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the City of Tucson, Arizona on April 2, 2007.

Total of 2 pages
(Exhibit not included)



City Clerk

ATTORNEY APPROVAL FORM

FOR THE CITY OF TUCSON

INTERGOVERNMENTAL AGREEMENT DETERMINATION


I have reviewed the above referenced Intergovernmental Agreement between the State of Arizona, acting by and through its DEPARTMENT OF TRANSPORTATION, and CITY OF TUCSON, an Agreement among public agencies which, has been reviewed pursuant to A.R.S. § 11-952, as amended, by the undersigned CITY Attorney who has determined that it is in proper form and within the powers and authority granted to CITY under the laws of the State of Arizona.

No opinion is expressed as to the authority of the remaining parties to enter into said Agreement.

Dated March 2, 2007

A handwritten signature in dark ink, appearing to be "J. [unclear]", written over a horizontal line.

Attorney

<p>TERRY GODDARD Attorney General</p>	 <p>OFFICE OF THE ATTORNEY GENERAL STATE OF ARIZONA</p>	<p>CIVIL DIVISION TRANSPORTATION SECTION Writer's Direct Line: 602.542.8855 Facsimile: 602.542.3646 E-mail: Susan.Davis@azag.gov</p>
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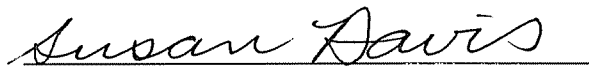
INTERGOVERNMENTAL AGREEMENT
DETERMINATION

A.G. Contract No. KR07-0020TRN (**JPA 06-145**), an Agreement between public agencies, i.e., The State of Arizona and The City of Tucson, has been reviewed pursuant to A.R.S. § 11-952, as amended, by the Undersigned Assistant Attorney General who has determined that it is in the proper form and is within the powers and authority granted to the State of Arizona.

No opinion is expressed as to the authority of the remaining Parties, other than the State or its agencies, to enter into said Agreement.

DATED: April 11, 2007

TERRY GODDARD
Attorney General


SUSAN E. DAVIS
Assistant Attorney General
Transportation Section

SED:mjf:1008384
Attachment

**ITS Partnership Agreement
between
The Federal Highway Administration
and
The Arizona Department of Transportation**

Project No. ITS-TUC-0(204)X

The purpose of this agreement is to award a grant of Federal assistance to the State (on behalf of the City of Tucson) for specific Intelligent Transportation Systems (ITS) activities, and to maximize the involvement of the State and other project participants in the ITS program, as authorized by the Transportation Equity Act for the 21st Century (TEA-21), P.L. 105-178, Sections 5201-5213 (23 USC 307 note). The parties to this agreement are independent contracting parties, and nothing in this agreement shall be deemed to create a business partnership for purposes of sharing profits and losses.

1. **Federal ITS Funds:** By executing this Agreement, the Government agrees, in accordance with TEA-21 Section 5208(g)(1), to reimburse the State with *Federal ITS Deployment Program funds* for a maximum of 50 percent of the allowable costs incurred in the performance of work under this ITS Partnership Agreement. The State shall be reimbursed for allowable costs incurred in the performance of work under this agreement in an amount not to exceed \$3,015,537.

1.1 Maximum Federal Share: In accordance with TEA-21 Section 5208(f)(2), the maximum share of *all Federal funding* for this project is not to exceed 80 percent of the cost of the activity. Thus the Federal funds must be matched at a minimum 80/20 (Federal/non-Federal) ratio, resulting in a matching share valued at not less than \$1,206,215. Reimbursement will follow regular Federal-aid billing and payment procedures in accordance with 23 C.F.R. Part 140.

1.2 Matching Share: The State shall match the Federal funds with at least 20 percent of the allowable costs. The 20 percent matching share must be from non-Federally derived funding sources and must consist of cash, substantial equipment contributions that are wholly utilized as an integral part of the project, or significant personnel services dedicated to the ITS Integration project for a substantial period. Such personnel costs are allowable only if not otherwise supported with Federal funds. The non-Federally derived funding may come from State, local government, or private sector partners. No fee payable to a project partner shall be allowed as part of the matching share. This provision does not prohibit appropriate fee payments to vendors or others who provide goods or services to the

project. It also does not prohibit business relationships with the private sector which result in revenues from the sale or provision of ITS products or services.

1.3 Other Project Funding: The State shall arrange for financing of the remaining costs of the project. The remaining costs may be funded from a variety of sources, including State or local government funds, private sector contributions and Federally-supported projects directly associated with the proposed integration project.

2. **Goals and Objectives:** The State shall work to accomplish the following project, the Tucson Regional Transportation Data Network, which will integrate multiple existing communication systems. Specific elements of work for this project include:
 - Conceptual Planning (including a Communications Plan, ITS Standards Plan, Implementation Plan and Operations and Maintenance Plan);
 - Detailed Design;
 - Systems Deployment and Integration;
 - Evaluation.
3. **Responsibilities of the State:** In conformance with approved Work Orders (See Section 10 below), the State shall perform or cause to be performed the following:
 - a. Activities as described in the attached Work Plan (See Section 4)
 - b. Ensure conformance with ITS Architecture and standards (See Sections 5 and 6)
 - c. A local evaluation and a local evaluation report (See Section 7)
 - d. Inclusion of the project in the metropolitan or Statewide Transportation Improvement Program, as applicable, and in State air quality implementation plans, as appropriate.
4. **Work Plan:** The State shall develop a Memorandum of Understanding (MOU) executed by the partnership organizations, an overall project Work Plan, schedule, and budget including the minimum 20 percent non-Federal match requirement, for approval by the Federal Highway Administration (FHWA) Division and/or Federal Transit Administration (FTA) Regional Office. The MOU, Work Plan, schedule, and budget shall become part of this signed agreement and attached as the last appendix, Appendix C.

[MOU, WORK PLAN, SCHEDULE, AND BUDGET ATTACHED TO AGREEMENT BY STATE AS APPENDIX C]
5. **ITS Architecture Conformance:** All projects shall comply with the requirements of 23 CFR Parts 655 and 940, Intelligent Transportation System Architecture and Standards Final Rule.
6. **Local Evaluation Report:** A Local Evaluation Report shall include a documentation of the lessons learned in meeting project goals and objectives (see Section 2). The report shall address those key aspects of the project evaluated, and to the extent possible, assess impacts on the relevant outcome measures as discussed in the *TEA-21*

Evaluation Guidelines. In addition, the Local Evaluation Report package will also include documentation on (1) two or more of the evaluation products/activities identified in the program guidance and (2) the projects cost accounting data. The report will contain an executive summary.

An ITS Integration Program self-evaluation progress system has been developed to assist the ITS Join Program Office in tracking deliverables. The system is accessible via the World Wide Web at <http://www.itsevaluation.net>. Each Earmark project should access this Web site to upload project deliverables, including the Local Evaluation Report and cost information, and project points of contact information.

7. **Participation in Evaluations and/or Standards Testing of National Interest:** Those Projects determined by the U.S. DOT ITS Joint Program Office (JPO) to be unique or nationally significant will cooperate with and participate in all phases of the Government's evaluation and/or standards testing program, from evaluation/testing planning to reporting of evaluation/testing results.
8. **ITS Deployment Tracking Surveys:** ITS Deployment Tracking Surveys must be completed, if not done so already, in applicable metropolitan areas.
9. **Work Orders:** Individual activities within the project Work Plan agreed to be performed by the State or caused to be performed by the State shall be incorporated in Work Orders. Each Work Order will specify the work and goals to be accomplished and the type and amount of assistance to be provided by the FHWA. Each Work Order must include a description of the work, completion dates for the work, and the signatures of the FHWA Division Administrator and an authorized representative of the State indicating acceptance of the Work Order prior to initiation of any work described therein. Issuance of a Work Order does not constitute a promise, either expressed or implied, that the FHWA will issue further Work Orders or provide additional assistance pursuant to this ITS Partnership Agreement. Continued funding will be dependent on the successful completion of ongoing tasks.
10. **Period of Performance:** The period of performance is as stated in the Work Orders. A final Local Evaluation Report (see section 7 above) documenting lessons learned and how well the project met the defined goals and objectives shall be submitted within six (6) months from the date of completion of the final Work Order and shall constitute completion of the project. This report shall be submitted to FHWA Division and/or FTA Regional Office, as appropriate.
11. **U.S. DOT Participation:** The United States Department of Transportation (U.S. DOT) agencies shall be considered full participants in the project. As such, the U.S. DOT shall be provided the opportunity for membership on all management committees, subcommittees, working groups, task forces, and other such groups related to the project. The U.S. DOT

will provide names, addresses, and phone numbers of DOT participants to the State Program Manager.

12. **Reporting Requirements:** Copies of all project reports, correspondence, meeting announcements, and other documents shall be supplied directly to the U.S. DOT Division office. The U.S. DOT Division office will provide names and addresses of specific contacts to receive these documents. All interim and final reports submitted to the U.S. DOT Division office shall be in both a hard copy as a reproducible and as microcomputer files. The hard copy shall be done on a laser printer with a resolution of at least 300 dpi.

a. The following shall be supplied to the ITS Electronic Document Library (EDL):

1. Submit final reports and executive summary, including self-evaluation, via email to itspubs@fhwa.dot.gov with a cc to susan.slye@fhwa.dot.gov.
2. Also send 3 copies on individual floppy disks via postal mail to the Publications Distribution Manager (for statutory transmittal to NTIS):
Publications Distribution Manager
ITS Joint Program Office – HOIT
U.S. Department of Transportation
Washington, DC 20590
3. Accompanying the report and evaluation must be an EDL profile sheet and NTIS form 1700.7, which can be downloaded from the EDL front page (www.its.dot.gov/itsweb/welcome.htm).
4. Electronic submission must be compliant with section 508 of the Americans with Disabilities Act. (The document must be accessible via keyboard.). Acceptable formats are HTML and Word. Mac formats are unacceptable.

b. Quarterly Progress Reports. This subparagraph identifies data elements to be submitted to the FHWA Division ITS Specialist on or before the 20th of the month following the end of the quarter being reported. These data elements are required to enable FHWA Division staff to update project data for in-progress State ITS projects every quarter. At a minimum, the quarterly report shall contain a concise report covering the following:

1. In the first reporting quarter, the Federal aid project number or contract number.

Thereafter, on a quarterly basis:

2. Revisions, as needed, to project contacts with associated organizations and telephone numbers.
3. Revisions to original estimated project completion dates. Project completion is defined as submission of the project report to FHWA. Adjusted dates should be accompanied by a brief explanatory remark describing the causes of schedule adjustments.

4. Revisions to original estimated cost values. Adjusted cost data should be accompanied by a brief explanatory remark describing the causes of cost adjustments.
5. Percent of funds expended.
6. Brief identification of milestones attained and/or significant events affecting the project.
7. As needed, a brief description of challenges encountered or anticipated having the potential for affecting project scope, creating institutional issues or presenting other significant considerations.

13. Programmatic Changes: The State must obtain the prior approval of the U.S. DOT whenever any significant change is anticipated. These include, but are not limited to:

- a. Any revision of the scope, goals or objectives of the consultant contract or related activities (regardless of whether there is an associated budget revision requiring prior approval).
- b. Changes in key personnel, program manager, or prime contractor.

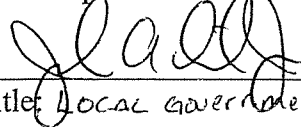
14. Intellectual Property: Intellectual property consists of copyrights, patents, and any other form of intellectual property rights covering any data bases, software, inventions, training manuals, systems design or other proprietary information in any form or medium.

It is the policy of the FHWA to allow the non-Federal partners of an ITS Partnership Agreement to retain all intellectual property rights developed under this agreement with the following limitations:

- a. Copyrights. The FHWA, as the contracting U.S. DOT agency, reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes:
 1. The copyright in any works developed under this agreement, or under a subgrant or contract under this agreement; and
 2. Any rights of copyright to which the State, its subgrantee, or contractor purchases ownership with Federal financial assistance provided by this agreement.
- b. Patents. Rights to inventions made under this agreement shall be determined in accordance with 37 C.F.R. Part 401. The standard patent rights clause at 37 C.F.R. §401.14, as modified below, is hereby incorporated by reference.
 1. The terms "to be performed by a small business firm or domestic nonprofit organization" shall be deleted from paragraph (g)(1) of the clause;
 2. paragraphs (g)(2) and (g)(3) of the clause shall be deleted; and

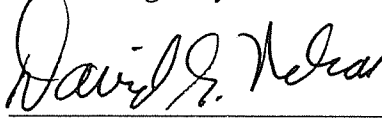
3. paragraph (1) of the clause, entitled "Communications" shall read as follows:
"(1) Communications. All notifications required by this clause shall be submitted to the FHWA Division Office."
15. **Costs:** The State shall limit its progress claims and final claims to those costs incurred in accordance with this ITS Partnership Agreement and shall submit its final claim within ninety (90) days after the project is completed.
16. **Additional Requirements:** These ITS funds shall be used only in support of, or for research on, intelligent transportation systems and not for construction of buildings. The design and operation of this ITS project must be consistent with the National ITS Architecture and the purposes of section 5206(e) of TEA-21. This project shall contribute to the implementation of the ITS standards development work and shall promote interoperability of ITS systems among the States. The final rule regarding conformity with the National ITS Architecture was published January 8 in the *Federal Register* at 66 FR1446, and was effective April 8, 2001. Participation of small business concerns owned and controlled by socially and economically disadvantaged individuals is encouraged. The State shall comply with all applicable laws, regulations and the FHWA requirements, including, but not limited, to 49 C.F.R. Parts 18, 20, 21, 27, and 29, and the assurances in OMB SF 424B attached hereto as Appendix A. These ITS funds shall be expended in compliance with the Buy America Act (41 U.S.C. 10a-10c).
17. **Certification Regarding Lobbying:** The State makes the certification regarding lobbying which is attached hereto as Appendix B.
18. **Termination:** The State shall notify FHWA immediately of any intent to terminate this ITS Partnership Agreement.
19. **Effective Date:** This ITS Partnership Agreement is effective upon execution by both parties.

State Department
of Transportation


Title: LOCAL GOVERNMENT ENGINEER

Date 12/27/06

Federal Highway Administration


Division Administrator

Date 12-27-06

ASSURANCES - NON-CONSTRUCTION PROGRAMS

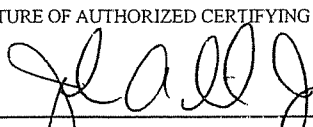
Note: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§ 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended, relating to non-discrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or Federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply with the provisions of the Hatch Act (5 U.S.C. §§ 1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§ 276a to 276a-7), the Copeland Act (40 U.S.C. § 276c and 18 U.S.C. §§ 874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333), regarding labor standards for Federally assisted construction subagreements.

Standard Form 424B (4-88)
Prescribed by OMB Circular A-102

10. Will Comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§ 1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. § 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§ 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984.
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL 	TITLE <i>Local Government Engineer</i>	
APPLICANT ORGANIZATION <i>ADOT</i>		DATE SUBMITTED <i>12/27/06</i>

CERTIFICATION REGARDING LOBBYING

By execution of this ITS Partnership Agreement, the undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal-appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an office or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any ITS Partnership Agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or ITS Partnership Agreement.
- (2) If any funds other than Federal-appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an office or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or partnership agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and partnership agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31 U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

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Preliminary Draft Project Assessment
For
**ITS Communication System Improvements
Regional Transportation Data Network (RTDN)**

Federal Project No: STP-TUC-0(204)X
TRACS No. 0000 PM TUC SS633 03D

Submitted to:
Arizona Department of Transportation
By

City of Tucson Department of Transportation
201 North Stone, 5th Floor
Tucson, Arizona 85701

Appendix C to Attachment to Exhibit A
to Resolution 20616

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1.0 Introduction

The City of Tucson Department of Transportation proposes to develop a Regional Transportation Data Network (RTDN) by integrating many of the multiple existing communications infrastructure systems that are currently deployed within the region. Establishment of the RTDN will facilitate the exchange of data and information between agencies and jurisdictions, advancing the region's ability to achieve the multi-agency coordination that is needed to support transportation, public safety, emergency management, Amber Alert (variable message signs), traffic management, traveler information, and Homeland Security efforts within the region.

Over the past decade, metropolitan Tucson, Arizona, has grown steadily, experiencing nearly 25% growth between 1990 and 2000. Today, the Tucson metropolitan area, encompassing over 9,200 square miles, has a population of over 900,000. Included in the region are the Cities of Tucson and South Tucson, the Towns of Marana, Sahuarita, and Oro Valley, and the Pascua Yaqui and Tohono O'Odham Native American communities. Tucson is the largest city in the metropolitan area, with a 2005 estimated population exceeding 530,000.

With the steady and significant population increase, traffic congestion is also increasing. According to the most recent mobility data published by the Texas Transportation Institute (TTI), the Tucson metropolitan area ranks 27th in the country in terms of the TTI travel time index. According to the study, over one-half of this delay (54%) is due to incidents on arterials and freeways as vehicle miles of travel have grown over 12 times faster than roadway capacity during the past decade. The Pima Association of Governments' 2025 Regional Transportation Model shows that the population will increase in the next 20 years by an additional 54%, auto trips will increase by 71%, and the number of vehicle hours traveled in the region will more than double, increasing by 136%. Finally, modelers project an increase of more than 300% in congested conditions.

The region has been addressing transportation operations from a regional perspective for decades. Long before the term "ITS" was coined, local traffic engineers were paving the way for ITS through pioneering efforts such as regional procurement of a common traffic signal control system, multi-jurisdictional coordination with incident response agencies, and a unique public/private partnership for provision of web based travel information to the public. These collaborative accomplishments are due to high levels of buy-in and well-functioning institutional coordination. The region desires to continue to broaden this institutional cooperation and to widen its stakeholder involvement in order to garner additional efficiencies from the surface transportation system. The Tucson Regional Transportation Data Network will not only aid the Tucson metropolitan area in addressing its traffic operations issues but will also improve inter-jurisdictional and inter-agency coordination and provide for a truly integrated transportation, public safety, and emergency services system.

2.0 Background Data

2.1 Purpose and Justification:

The need for a regional communications network was established during the development of the Pima Association of Governments (PAG) ITS Strategic Deployment Plan for the 21st Century

(July 2004). In simple terms, the regional stakeholders currently do not have adequate bandwidth or reliable communications between jurisdictions to achieve inter-jurisdictional and inter-agency sharing of information and systems.

Tucson area stakeholders recognize that integrating systems between agencies is key to maximizing the efficiency of the transportation network. With the RTDN integration project the region will gain the necessary communications infrastructure needed to achieve inter-jurisdictional and inter-agency sharing of information that will improve transportation mobility, traffic flow, and transit operations; support the expansion of and information sharing capabilities of existing ITS deployments; and ultimately enhance the region's ability to provide accurate, timely, and comprehensive web based travel information to the public.

It is the intent of the Project to build upon a solid foundation of institutional cooperation as well as existing technologies and programs. A substantial amount of existing communications infrastructure (e.g., conduit, fiber, and wireless infrastructure) in the region is owned and operated by various agencies and departments. In addition, a significant amount of additional infrastructure is programmed for construction. This RTDN project will identify areas where existing and programmed communications infrastructure assets of the various systems within the region can be combined into a common communications infrastructure that facilitates the exchange of data and information between agencies and jurisdictions. The RTDN project will also identify areas where new communications infrastructure is required to advance the region's ability to achieve the multi-agency coordination of transportation, public safety, emergency response, Amber Alert, and Homeland Security efforts.

The RTDN project will ultimately provide a Communications Master Plan that establishes a vision of how existing, programmed, and future communications infrastructure investments can be combined into a common network that supports the intra-jurisdictional and inter-jurisdictional communications of all stakeholders (including integration of transportation and public safety communications systems); an Implementation Plan that breaks this overall RTDN vision down into more manageable project phases that can be implemented in the years to come; an Operations and Maintenance Plan that identifies the policies and procedures that the stakeholders will follow and the roles and responsibilities of each stakeholder; a set of construction documents (plans, specifications, and estimate) for the initial deployment phase of the RTDN; construction of the initial deployment phase of the project; and an Evaluation Report documenting the lessons learned in meeting project goals and objectives.

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2.2 Original and Subsequent Projects:

The ITS Master Planning effort was included under the 2004 Tucson Metropolitan Region Intelligent Transportation Systems: Strategic Deployment Plan for the 21st Century. This plan includes key implementation goals for the current Transportation Improvement Program as well as concepts for the physical architecture that will integrate the entire ITS program into a regional transportation data network. The table below includes several inter-related projects; integrating traffic/emergency dispatching systems, expanding and improving traffic signal pre-emption region-wide, establishing and expanding the ER-Link Tucson telemedicine program, and improving the flood detection and warning system.

TIP ID #	Project Name	Project Description	Status
782.00	ITS Emergency Pre-emption Warning Signals	Install pre-emptive signals at COT Fire Stations	Complete
761.00	ITS Freeway Management	Install fiber optic network from the 911 center to DPS	Complete
52.02	ITS Communication System Improvements FY 07	Expansion of the Traffic signal communication network	Estimated Start 10/06
31.01	Emergency Pre-emption System Expansion FY08	Complete signal pre-emption system for City and expand to coordinate with Pima County	Estimated Start FY 08

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On December 10, 2004, the City of Tucson Transportation Department and the Pima Association of Governments sponsored a Tucson Regional Transportation Data Network Stakeholder Survey Workshop. Workshop attendees included police, fire, transportation, transit, information systems, and aviation from multiple jurisdictions including City of Tucson, Town of Marana, Town of Oro Valley, Pima County, Arizona Department of Public Safety, Arizona Department of Transportation, and Sun Tran. The purpose of the Stakeholder Survey Workshop was to gather stakeholder input relating to the RTDN, thus initiating the planning and design of the RTDN project concept. The project concept was then developed based upon the data collected at the Stakeholder Survey Workshop and subsequent follow-up calls.

2.3 Project Area:

The project area will be regionwide. The specific construction components will be built within the City of Tucson.

3.0 Project Scope

The following project scope is organized to follow a systems engineering analysis planning, design, and implementation process that will include:

- Identification of portions of the regional ITS architecture being implemented;
- Requirements definitions of the RTDN for supporting the communications needs of the various data processing platforms that will ultimately depend on the RTDN for inter-jurisdictional information sharing;
- Analysis of alternative RTDN infrastructure topologies, configurations, and technology options to meet the defined requirements;
- Procurement options for various portions of the RTDN infrastructure;
- Identification of applicable ITS standards and testing;
- Identification of participating agencies' roles and responsibilities; and
- Procedures and resources necessary for operations and management of the RTDN.

Implementation of the RTDN will be completed in multiple phases and years, starting in FY 07. The first phase of the program will include the development of a Communications Master Plan, Implementation Plan, and Operations and Maintenance Plan for the entire RTDN program. The second phase of this project will provide for the 30% design, detail design, and PS&E for construction of critical communications integration efforts called for in the Implementation Plan.

3.1 Communications Master Plan (Phase 1):

The RTDN Communications Master Plan will guide the detailed design of the RTDN. It will specify a communications architecture and technology that will support the requirements of the various systems that will be integrated and that are planned for implementation in the Tucson metropolitan area.

Since the RTDN project is intended to build upon existing technologies and programs, and a substantial amount of existing communications infrastructure such as conduit and fiber optic cable is owned and operated by various agencies and departments within the region, the RTDN Communications Master Plan will include a needs analysis and inventory of existing communications systems. The needs analysis will identify systems owned and operated by state, county, and local police, fire, emergency management, transportation, roadway maintenance, and transit agencies that could be integrated.

The Communications Master Plan will involve the following sub-tasks:

- Define how the regional ITS architecture was used in planning RTDN;
- Define how the RTDN will follow the Systems Engineering Analysis process;
- Inventory existing infrastructure and assess current/future deployment plans;
- Perform an industry/national review of similar systems of like scope and magnitude;
- Perform a needs assessment and develop system requirements;
- Define how appropriate ITS standards will be applied;
- Develop a high-level description of the required functionality for the RTDN; and
- Recommend a communications architecture and develop guidelines for deployment.

3.2 Implementation Plan (Phase 1):

The Implementation Plan will divide the 20-year vision of the RTDN Communications Master Plan into smaller, manageable projects. Each of these projects will be prioritized, and deployment phases will be recommended for each project. It will develop a systematic RTDN deployment approach so that expansion of the RTDN infrastructure can be completed quickly and efficiently. The Implementation Plan will involve the following sub-tasks:

- Prioritize RTDN project segments;
- Identify stakeholders for each RTDN segment;
- Identify procurement options for various portions of deployment;
- Develop a phased, multi-year implementation approach; and
- Define the scope of the initial deployment phase.

3.3 Operations and Maintenance Plan (Phase 1):

The RTDN Operations and Maintenance Plan will identify the following:

- Policies and procedures for how future deployment phases will be prioritized;
- Agreed upon expectations and Service Level Agreements (SLA) that need to be communicated to stakeholders as they connect to and relay data on the RTDN for intra-agency and inter-agency communications;
- Roles and responsibilities of stakeholders for the operations and maintenance of the RTDN;
- The various types of joint participation agreements (JPA's) and/or intergovernmental agreements (IGA's) that will be required to share assets owned by multiple jurisdictions; and
- A high-level estimate of operations and maintenance staffing budgets that will be needed to support the network at various stages of deployment.

3.4 Detailed Design and PS&E (Phase 2):

Based on the information obtained from previous planning tasks, the implementation priorities for the initial deployment phase of the RTDN program will be established. It is envisioned that the implementation priorities for the initial deployment phase of the RTDN project will encompass more than just establishing one or more key near-term inter-jurisdictional communications links. The initial deployment phase of the project will need to function as a proof of concept test. As such, the following are some additional factors that will be taken into account when defining the scope of the initial deployment phase of the RTDN program:

- Demonstrating network compatibility with the ER-Link Communication Infrastructure.
- Demonstrating network compatibility with the City Traffic Signal System communication infrastructure.
- Demonstrating the ability of the RTDN to support both Center-to-Center communications as well as the ability to simultaneously achieve Center-to-Field Device communications.
- Demonstrating the ability to leverage RTDN infrastructure investments to reduce operating cost of an agency's Traffic Signal System.
- Demonstrating the ability of the RTDN to establish communications with mobile command centers, first responders, and maintenance personnel out in the field.

3.5 Deployment/Construction/Integration (Phase 3):

The Construction Documents for the initial deployment phase of the RTDN program will be advertised for construction after the set of Plans, Specifications, and Estimate (PS&E) are sealed by a registered Professional Engineer in the State of Arizona and authorized by ADOT/FHWA.

3.6 Evaluation of Benefits Report (Phase 3):

The goal areas where the Tucson RTDN project is expected to yield benefits are as follows:

Reduction in the overall rate of crashes
Reduction in the rate of crashes resulting in fatalities

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Deleted: The RTDN project will be based on a systems engineering analysis, and the analysis will include:

Reduction in the rate of crashes resulting in injuries
Reduction in travel time delay
Reduction in travel time variability
Increase in freeway and arterial throughput
Cost Savings
Decrease in vehicle emissions
Decrease in vehicle energy consumption
Ratings cutting across all other goal areas

Each of these goal areas will be associated with a quantifiable outcome or unit of measure. At the end of each major component phase of the RTDN project (conceptual planning phase, detailed design phase, and systems deployment and integration phase), the project stakeholders will evaluate the project against the goal areas and make any necessary adjustments in the project implementation approach that will ultimately result in the project achieving or exceeding its goals and objectives.

At the end of the Evaluation Phase of the RTDN project, the stakeholders will prepare a Local Evaluation Report (with an executive summary) documenting the following:

- Identification of portions of the regional ITS architecture being implemented;
- Requirements definitions of the RTDN for supporting the communications needs of the various data processing platforms that will ultimately depend on the RTDN for inter-jurisdictional information sharing;
- Analysis of alternative RTDN infrastructure topologies, configurations, and technology options to meet the defined requirements;
- Procurement options for various portions of the RTDN infrastructure;
- Identification of applicable ITS standards and testing;
- Identification of participating agencies' roles and responsibilities; and
- Procedures and resources necessary for operations and management of the RTDN.

4.0 Project Development Considerations

4.1 Design Concept Report:

This report will serve as the Design Concept Report/Preliminary Project Assessment for this project. A second project assessment will be prepared at the 30% design stage.

4.2 Environmental Overview:

As determined by the project scope, which involves the creation of a Communications Master Plan, Implementation plan and Operations and Maintenance Plan, it is presumed that this project will qualify for either a Group 1 or a Group 2 Categorical Exclusion. The Environmental Clearance memo will be prepared by ADOT Environmental and Enhancement Group.

4.3 Right of Way Requirements:

The construction component of this project (Phase 3) will occur within the public Rights of Way and no additional Right of Way will be needed.

4.4 Utility Relocation Requirements:

Any potential utility relocation requirements associated with the construction component of this project will be addressed during the 30% design (Phase 2).

4.5 Seasonal Considerations:

Concerns with seasonal impacts will be addressed during 30% design (Phase 2).

4.6 Traffic Requirements:

As necessary, any traffic control required will be in accordance with the most current *Manual on Uniform Traffic Control Devices for Streets and Highways*, published by the US Department of Transportation, Federal Highway Administration, including any revisions or additions, and/or associated provisions in the project plans, as determined by the City of Tucson during the certification acceptance or self-bid and administer process.

4.7 Design Criteria:

The design will comply with City of Tucson/Pima County Standard Design Specifications, which are consistent with ADOT standards.

4.8 Exceptions:

The construction phase of this project will require a Categorical Exclusion in accordance with 23 CFR 771.117(c) and the Arizona Programmatic Categorical Exclusion.

No AASHTO design exceptions apply to this project.

4.9 Critical Outside Agency Involvement:

As part of the concept exploration effort, an RTDN Stakeholder Survey Workshop was conducted to gather stakeholder input. In that process, primary project partners were identified as well as other agencies within the region that will have the opportunity to participate in the RTDN development process. The participation of these secondary agencies will vary depending on their staff resources at the time of each submittal review and on their participation in PAG committee meetings. Participating agencies/organizations and their identified roles and responsibilities are as follows:

Lead Agency: City of Tucson Department of Transportation

- Provide project oversight and administration.

- Serve as primary contact to Federal Highway Administration.
- Provide oversight of the long-term project operations and management plan and site specific operations and management of segments of the RTDN owned and operated by the City of Tucson.
- Provide the staff resources required to provide data to the design team, participate in stakeholder meetings, review and comment on deliverables, and provide staff required for construction coordination of the RTDN.

Primary Project Partner: Pima Association of Governments (PAG)

- Provide project updates and facilitate regional coordination efforts.
- Serve as contact for ITS Standards and provide coordination of the RTDN infrastructure constructed in the unincorporated area of Pima County.
- Provide the staff resources required to provide data to the design team, participate in stakeholder meetings, review and comment on deliverables, and provide staff required for construction coordination of the RTDN.

Primary Project Partner: Arizona Department of Transportation

- Conduct Evaluation of Benefits.
- Operate and manage segments of the RTDN owned and operated by the Arizona Department of Transportation.
- Prepare the intergovernmental agreement authorizing this project.
- Provide staffing to administer this project.
- Facilitate the payment of FHWA earmark funds to the City of Tucson for the project.

Primary Project Partner: Pima County Department of Transportation

- Provide the forum needed for bringing stakeholders together to discuss project direction and objectives.
- Provide staff resources required to provide data to the design team, participate in stakeholder meetings, review and comment on deliverables, and provide staff required for construction coordination of the RTDN.

Secondary Project Partners: Arizona Department of Public Safety, City of South Tucson, City of Tucson Fire Department, City of Tucson Information Technology Department, City of Tucson Police Department, Metro Networks, Pascua Yaqui Tribe, Pima County Office of Emergency Management, Rural Metro, Sun Tran, Tohono O’Odham Nation, San Xavier District, Town of Marana, Town of Oro Valley, Town of Sahuarita, Tucson Airport Authority, and University of Arizona.

- Operate and manage all segments of the RTDN owned and operated by that agency or organization.
- Provide the staff resources required to provide data to the design team, participate in stakeholder meetings, and provide review and comments on deliverables.

5.0 Other Requirements

The Federal funding source for this project is a Federal Earmark Grant authorized by Federal Highway Administration. The project schedule calls for the project to begin in 2006 and end in 2011. The City of Tucson will perform project management and construction administration and has certification acceptance.

6.0 Estimated Project Costs

Phase	Major Activities of RTDN Integration Project	20% Local Match	30% Federal Matching Funds	50% Congressionally Designated Funding	Total
1	Conceptual planning <ul style="list-style-type: none">• Communications Master Plan• RTDN Implementation Plan• RTDN Operations & Maintenance Plan			250,000	\$250,000
2	RTDN 30% Design, Detailed Design and PS&E			500,000	\$500,000
3	RTDN Deployment/Construction/Integration	1,203,537	1,812,000	2,240,537	\$5,256,074
3	Evaluation of Benefits Report of Regional Transportation Data Network			25,000	\$25,000
	Total Project Cost	1,203,537	1, 812,000	3,015,537	\$6,031,074

20% MATCH FUNDING SOURCES

Identify Non-Federal Funding Source	Identify Type of Funds (cash, equipment or facilities, or full-time personnel services)	Identify Major: (1) Integration Activities, (2) Rural Infrastructure Deployment, or (3) CMS/DMS as part of an AMBER program Supported with These Funds	Specify Amount of Funding (\$)
City of Tucson	Facilities and Equipment	Fire Station 21 Construct 7 miles of fiber from Woods Library to Station 21	\$165,687
City of Tucson	Facilities and Equipment	Intermodal Depot Fiber to support CCTV Surveillance System	\$180,379
State of Arizona	Facilities and Equipment	DOT Mission Road Fiber 5 miles of fiber to connect IT to Pima County Jail	\$16,900
City of Tucson	Facilities and Equipment	2 miles of Fiber from Rincon Substation to Danforth Water Site	\$156,956
City of Tucson	Facilities and Equipment	Rillito Police Station Fiber 7 miles of aerial/underground fiber from Old Rincon Station to new facility	\$16,955
Local Bond Funding	Facilities and Equipment	Fire Alert System Replace wireless/fiber connection system for Tucson Fire dispatch	\$500,000
City of Tucson	Facilities and Equipment	TPD WLAN Access Point Provide Wireless access to 32 locations for TPD and Fire	\$15,275
City of Tucson	Facilities and Equipment	Tohono Tower Design of 50' monopole and wireless connection to Tohono Transit Center	\$14,452
HURF	Facilities and Equipment	Communications System Improvements ITS Connection between Tucson and Marana	\$136,933
		Total	\$1,206,215

30% Match Funding Sources

Identify Funding Source	Identify Type of Funds, (cash, equipment or facilities, or personnel services)	Identify Major: (1) Integration Activities, (2) Rural Infrastructure Deployment, (3) CMS/DMS as part of an AMBER Program, or (4) Infrastructure Deployment Promoting Integration Supported with These Funds	Specify Amount of Funding (\$)
Communication System Improvements (Federal Aid) PAG TIP 52.02 COT CIP# S770	Facilities and Equipment	Construct ITS communication improvements. Funding in FY2007 is for the expansion of the traffic signal communication network for integration into the RTDN	\$1,000,000
Intelligent Transportation System Improvements (Federal Aid) PAG TIP 44.02 COT CIP #S752	Facilities and Equipment	Construct upgrades to the Intelligent Transportation System in accordance with the Regional Communications Plan. Funding in FY2007 is for the installation of a communications link between the Tucson Operations Center and the Pima Association of Governments Building.	\$ 37,000
Intelligent Transportation System Improvements (Federal Aid) PAG TIP 49.02 COT CIP #S78B	Facilities and Equipment	Construct upgrades to the Intelligent Transportation System in accordance with the Regional Communications Plan. Funding in FY2007 is for the installation of a communications link between the Tucson Operations Center and the City of South Tucson.	\$ 100,000
Intelligent Transportation System Connections (Federal Aid) PAG TIP 46.02 COT CIP #S78A	Facilities and Equipment	Install fiber optic connections along roadway segments. Funding in FY2007 is for a fiber optic connection on Valencia between Old Nogales Highway and Calle Santa Cruz	\$ 175,000
Regional Traffic Operations Center (Federal Aid) PAG TIP 43.05 COT CIP #S770	Facilities and Equipment	Funding in FY2008 for design and Installation of Traffic Monitoring Cameras at selected intersections.	\$ 500,000
		TOTAL	\$1,812,000

7.0 Estimated Project Schedule

7.1 Start Date:

The project is anticipated to begin in October 2006.

7.2 Expected Completion Date:

The initial deployment phase of the RTDN (including the Evaluation of Benefits Report) is anticipated to be complete in June 2011.

7.3 Project Milestones:

Project Milestones Schedule	
Deliverable/Completion	Amount of Time
RTDN Conceptual planning	12 months following authorization to fund the design
RTDN 30% Design, Detail Design and PS&E	12 months following RTDN Conceptual planning
RTDN Deployment/Construction/Integration	30 months following RTDN Detail design and PS&E
Evaluation of Benefits Report of RTDN	6 months following RTDN Deployment/Construction/Integration

8.0 Service Involvement Sheet

Project Number: STP-TUC-0(204)X

TRACS Number: 0000 PM TUC SS633 03D

Project Name: ITS Communication System Improvements Regional
Transportation Data Network

Project Location: City of Tucson, Pima County, Arizona

CONTACTED	FIELD REVIEW	ORGANIZATION	INVOLVEMENT				COMMENTS (ISSUES THAT MAKE INVOLVEMENT SIGNIFICANT OR MINIMAL)
			SIGNIFICANT	MINIMUM	NONE	UNKNOWN	
		ADOT Technology Group (For IT)		X			
		ADOT Local Government Section		X			
		ADOT Tucson Maintenance District			X		
		ADOT Roadway Design			X		
		ADOT Pavement Design			X		
		ADOT Bridge Design			X		
		ADOT Drainage Design			X		
		ADOT Transportation Planning			X		
		ADOT Traffic Design			X		
		ADOT Photogrammetry & Mapping			X		
		ADOT Engineering Survey			X		
		ADOT Geotechnical Services			X		
		ADOT Environmental & Enhancement Group		X			Processing of the Categorical Exclusion
		ADOT Roadside Development			X		
		ADOT Right-of-Way Group			X		Right-of-Way Certification
		ADOT Utilities & Railroads			X		
		ADOT Contracts & Specifications		X			IGA needed
		ADOT Procurement					
		FHWA		X			Finding in the public interest
		City of Tucson Transportation	X				Project Management/Administration
		Pima Association of Governments		X			Administration of TIP
		Other Agencies					